

A new species of *Amphidromus* from Vietnam (Gastropoda: Camaenidae)

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ABSTRACT A new species of the genus *Amphidromus* from Vietnam is described. It is compared to *Amphidromus frausena* Thach & F. Huber, 2017 of Vietnam and *Amphidromus thachorum* F. Huber, 2020 of Laos having the same chocolate color of columella and outer lip.

KEYWORDS Mollusca, Gastropoda, Camaenidae, *Amphidromus*, Vietnam, Gia Lai, Phú Thiện, Laos, *Cyclotus*, *Ariophanta*, *Dyakia*

INTRODUCTION

The genus *Amphidromus* is a main genus of the family Camaenidae with many of the species collected in Vietnam. While a large number of the species of this genus have been described, our team identified a new species of this genus on a mountain plateau of Central Vietnam that is not listed in the works of Pilsbry (1900), Laidlaw & Solem (1961), Zilch (1964), Solem (1965), Sprinsteen & Leobrera (1986), Parkinson *et al.* (1987), Abbott (1989), Dharma (2005), Sutcharit & Panha (2005, 2006a, 2006b), Severns (2011), Chan & Tan (2010), Stanisić *et al.* (2010, 2017), Sutcharit *et al.* (2015), Stark (2017), Inkhavilay *et al.* (2017, 2019) or Thach (2005, 2007, 2012, 2016, 2017, 2018, 2020). It is hereunder described as new to science.

Abbreviations

DB = David Berschauer Collection
 MNHN = National Museum of Natural History, Paris, France
 PA = Pham Anh collection
 n.sp. = new species

SYSTEMATICS

Class Gastropoda Cuvier, 1797

Subclass Heterobranchia

Order Stylommatophora

Superfamily Helicoidea

Family Camaenidae Pilsbry, 1895

Genus *Amphidromus* Albers, 1850

Type species: *Helix perversus* Linnaeus, 1758
 (subsequent designation)

Amphidromus davidberschaueri Thach,
 new species
 (Figures 1-6)

Description. Shell medium-sized (measuring in average height between 34.5 mm and 38.3 mm) and elongate-ovate with both sinistral and dextral coilings (2/3 collected specimens are sinistral). Shell width 50% of height (see Table 1). Spire moderately tall, apical whorls swollen and red-brown. Body whorl inflated and occupying 65.3% of shell height, periphery rounded. Outer surface ornamented with white spiral bands that are intermittent on spire whorls and continuous but very faint at body whorl. Sculpture consists of broad, white subsutural bands and oblique axial riblets. Aperture elongate and occupying 48.3% of shell height, outer lip moderately thick, regularly convex and slightly reflected, sometimes with white inner margin. Columella curved and inflated, umbilicus widely open. Background chocolate-

colored with black apex, darker outer lip and columella. The type material was provided by Pham Anh from Vietnam.

No./Dimension	1	2	3
SH (mm)	37.0	38.3	34.5
SW (mm)	18.5	19.5	16.8
SW/SH	0.50	0.51	0.49
Mean SW/SH	0.500		
BH (mm)	23.2	25.0	23.5
BH/SH	0.63	0.65	0.68
Mean BH/SH	0.653		
AH (mm)	17.0	18.3	17.7
AH/SH	0.46	0.48	0.51
Mean AH/SH	0.483		

Table 1. *Amphidromus davidberschaueri* type material dimensions: SH=shell height; SW=shell width; BH=body whorl height; and AH= aperture height.

Type material. Holotype (37.0 mm high x 18.5 mm wide) deposited in MNHN with Registration No: MNHN-IM-2000-36535.

Other material. Paratype 1 (38.3 mm high) in DB collection; Paratype 2 (34.5 mm high) in PA collection. All types from the type locality.

Type locality. Phú Thiện District, Gia Lai Province, Central Vietnam.

Diagnosis. The new species is characterized by chocolate color, white spiral bands and red-brown apical whorls.

Habitat. Tree dweller.

Etymology. The new species is named in honor of David Berschauer from USA for his contribution to the development of malacology.

DISCUSSION

The new species is close to *Amphidromus fraussenae* Thach & F. Huber, 2017 (Figure 7), but the color of outer lip and columella is slightly different, spire broader and not pointed, apex not red, parietal wall not well-defined, white spiral bands are present mainly at sutures and outer lip not ascending steeply before touching the remaining shell. *Amphidromus thachorum* F. Huber, 2020 (Figure 8) is distinguished mainly from the new species by more elongate aperture, stronger axial ribs, more inflated columella, not black apex, well-defined parietal wall and presence of black varix.

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LITERATURE CITED

Abbott, R.T. 1989. Compendium of Landshells. American Malacologists Inc., Florida, USA, 240 pp.

Chan, S.Y. & S.K. Tan. 2010. On two new species of *Amphidromus* (Gastropoda: Camaendae) from the Lesser Gunda Islands, Indonesia. The Raffles Bull. of Zool. 58(2):245-249.

Dharma, B. 2005. Recent & Fossil shells of Indonesia. Conch Books, Hackenheim, Germany, 432pp.

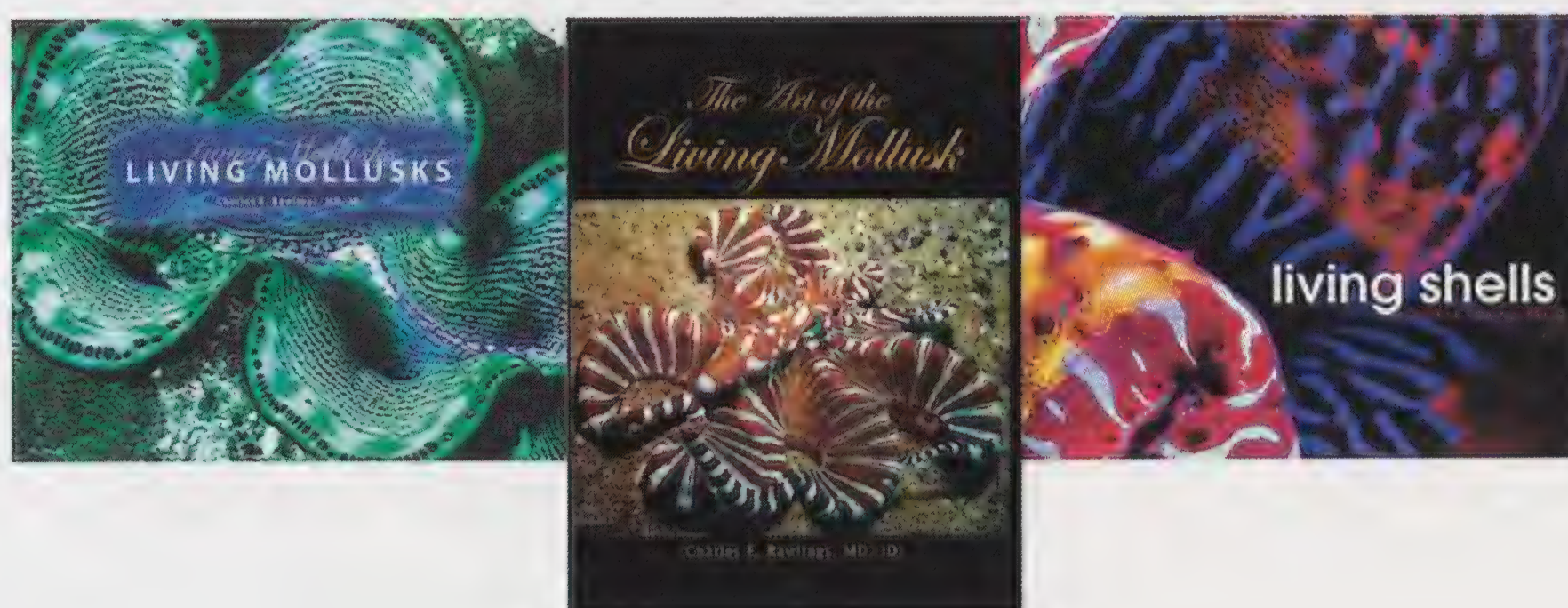
Inkhavilay, K., C. Sutcharit & S. Panha. 2017. Taxonomic Review of the tree snail *Amphidromus* Albers, 1850 (Pulmonata: Camaenidae) in Laos; with descriptions of two new species. European Jour. Taxonomy 330:1-40.

Inkhavilay, K., C. Sutcharit, U. Bantaowong, R. Chanabun, W. Siriwut, R. Srisonchai, A. Pholyotha, P. Jirapatrasilp & S. Panha. 2019. Annotated checklist of the terrestrial molluscs from Laos (Mollusca, Gastropoda). ZooKeys 834:1-166.

Laidlaw, F.F. & A. Solem. 1961. The land snail genus *Amphidromus*: A synoptic catalogue. Chicago Natural History Museum, USA. 41(4):506-677.

Parkinson, B., J. Hemmen & K. Groh. 1987. Tropical land shells of the world. Verlag Christa Hemmen, Wiesbaden, Germany, 279 pp.

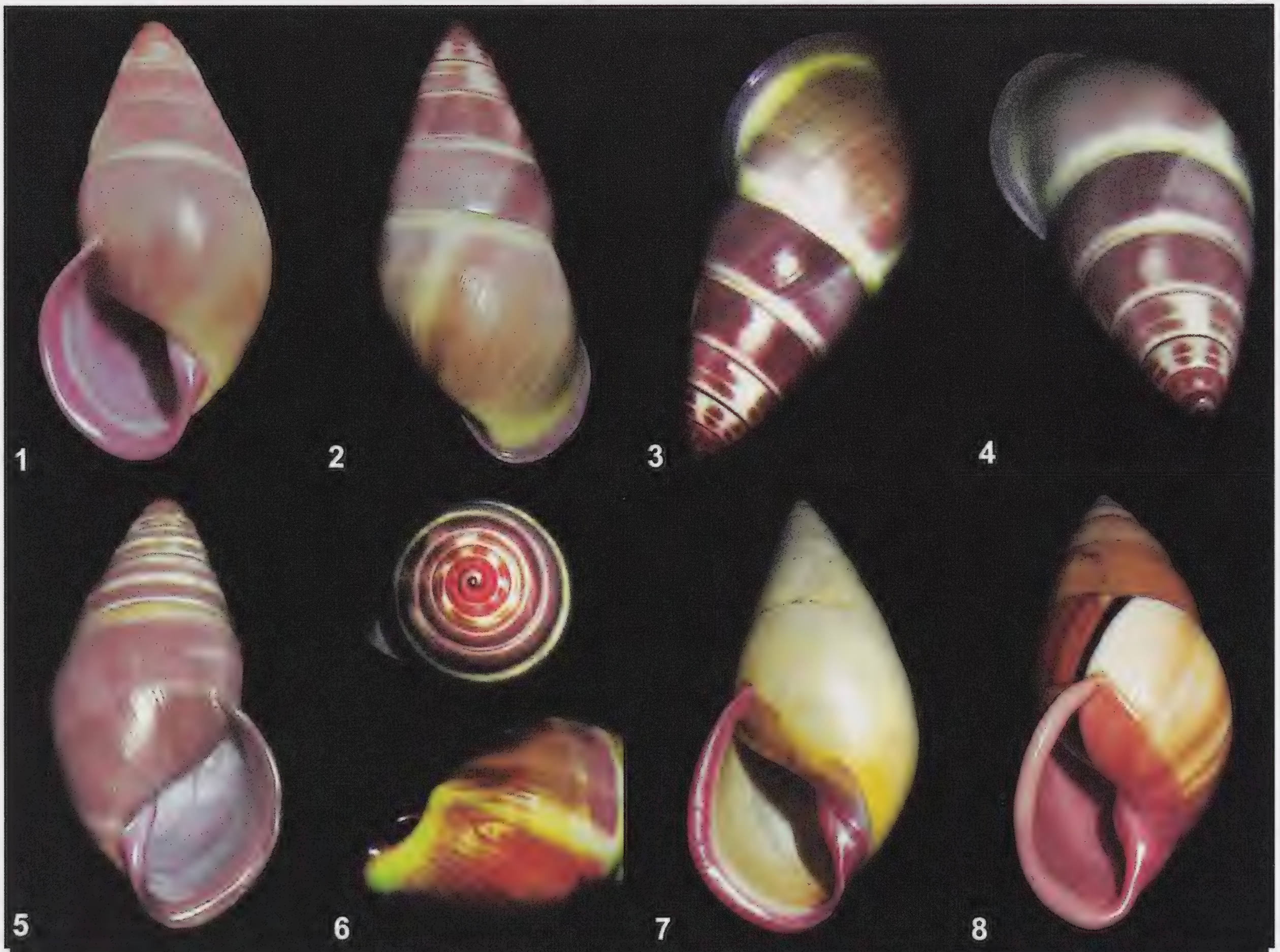
- Pilsbry, H.A. 1900.** Manual of Conchology, Series 2, Vol. 13, pp. 127-234, Pls. 46-71.
- Severns, M. 2011.** Shells of the Hawaiian Islands. Vol.1 & 2: The sea shells & land shells. ConchBooks, Hackenheim, Germany, 564 pp. & 460 pp.
- Solem, A. 1965.** Land snails of the genus *Amphidromus* from Thailand. Proc. U.S. Nat. Mus. 117(3519):615-628.
- Sprinsteen, F.J. & F.M. Leobrera. 1986.** Shells of the Philippines. Carfel Shell Museum, Manila, Philippines, 377 pp.
- Stanisic, J., M. Shea, D. Potter & O. Griffiths. 2010.** Australian Land Snails, Volume 1. Bioculture Press, Mauritius, 591 pp.
- Stanisic, J., M. Shea, D. Potter, & O. Griffiths. 2017.** Australian Land Snails, Volume 2. Bioculture Press, Mauritius, 594 pp.
- Stark, A. 2017.** Description of *Amphidromus (Syndromus) sylviae* spec. nov. (Mollusca: Gastropoda: Pulmonata: Camaenidae) from Vietnam. Halle (Saale): Ampyx - Verlag, Germany, 12 pp.
- Sutcharit, C. & S. Panha, 2005.** Taxonomy Review of the tree snail *Amphidromus* Albers, 1850 (Pulmonata: Camaenidae) in Thailand and adjacent areas: Subgenus *Amphidromus*. Jour. of Molluscan Studies (2006) 72:1-30
- Sutcharit, C. & S. Panha, 2006a.** A New Subspecies of *Amphidromus (A.) inversus* (Müller, 1774) from Peninsula Malaysia. Jour. Conchology, vol. 39, No 1.
- Sutcharit, C. & S. Panha. 2006b.** Taxonomic Review of the tree snail *Amphidromus* Albers, 1850 (Pulmonata: Camaenidae) in Thailand and adjacent areas; Subgenus *Amphidromus*. Jour. Molluscan Studies. 72(1):1-30.
- Sutcharit, C., J. Ablett, P. Tongkerd, F. Naggs, & S. Panha. 2015.** Illustrated type catalogue of *Amphidromus* Albers, 1850 in the Natural History Museum, London, and descriptions of two new species. ZooKeys 492:49-105.
- Thach, N.N. 2005.** Shells of Vietnam. ConchBooks, Hackenheim, Germany, 430 pp. (including 92 color plates).
- Thach, N.N. 2007.** Recently collected Shells of Vietnam. L' Informatore Piceno & NNT, Ancona, Italy, 380 pp. (including 118 color plates).
- Thach, N.N. 2012.** New Records of Molluscs from Vietnam. 48HrBooks Co., USA, 276 pp + 151 color plates.
- Thach, N.N. 2016.** Vietnamese New Mollusks. 48HrBooks Co., USA, 205 pp (including 99 color plates).
- Thach, N.N. 2017.** New Shells of Southeast Asia. 48HrBooks Co., USA, 128 pp (including 68 color plates).
- Thach, N.N. 2018.** New Shells of South Asia. 48HrBooks Co., USA, 173 pp (including 87 color plates).
- Thach, N.N. 2020.** New Shells of South Asia, Volume 2. 48HrBooks Co., USA, 190 pp (including 87 color plates).
- Zilch, A. 1964.** Die Tyen und Typoide des Natur-Museums Senckenberg. Camaenidae. Archiv. Moll. 93(5/6):243-262, Pl. 6.



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Figures 1-6. *Amphidromus davidberschaueri* n.sp., Vietnam: 1-2 = holotype 37 mm high with ventral and dorsal views (MNHN-IM-2000-36535); 3 = holotype with reflected outer lip; 4 = holotype with spire view; 5 = Paratype 1, 38.3 mm high with ventral view; 6 = Enlarged apex (top) and umbilicus (bottom) of holotype; 7 = *Amphidromus fraussenae* Vietnam for comparison; 8 = *Amphidromus thachorum* Laos for comparison.